

Tables for PREC Subcommittee June 7, 2011

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Table 1. Wells where use of hexazinone on alfalfa is most likely source for detection in well water. Data for amount used from Pesticide Use Report data base where records start at year 1990.

Likely Source of Detections	Section with Well Detection	Hexazinone		Diuron		Comments on Pattern of use and Detections
		Concentration ug/L (Year of Detection)	Reported Alfalfa Use Prior to Year of Detection (lbs)	Concentration ug/L (Year of Detection)	Reported Use Prior to Year of Detection (lbs)	
Alfalfa use	48M06N01E23	0.13 (2007)	18,676	0.15 (2007)	7299 Alfalfa 0 Other Crops	Years prior to 2007
	24M09S14E23	0.11 (1997)	4,845	0.12 (1997)	4,845 Alfalfa 0 Other Crops	Years prior to 1997 Diuron detected in 1 other well
	39M02S05E24	0.07 (1996) 0.05 (2002)	2,760	0.06 (1996) ND (2002)	1,568 Alfalfa 15 Other Crops	Years prior to 1996
	10M17S19E36	0.25 (2007)	6,045	0.15 (2007)	1,166 Alfalfa 1,320 Other Crops	Years prior to 2007
	10M17S19E36	0.08 (2007)	6,045	0.08 (2007)	1,166 Alfalfa 1,320 Other Crops	Years prior to 2007
	10M17S19E36	0.13 (2008)	6,045	ND (2008)	1,166 Alfalfa 1,320 Other Crops	Years prior to 2007 Diuron detected in 2 other wells
	50M07S09E06	ND (2001) 0.09 (2007)	1,628	0.07 (2001) 0.09 (2007)	5,831 Alfalfa 0 Other Crops	Years prior to 2007
	48M06N01W36	0.06 (1995)	17,330	ND (1995)	0 All Crops	Years prior to 1995
	39M02S04E22	0.10 (2002)	8,001	ND (2002)	3,427 Alfalfa 0 Other Crops	Years prior to 2002 Diuron detected in 2 other wells
	3M901N05E16	0.09 (2008)	4,650	ND (2008)	6,162 Alfalfa 1,802 Other Crops	Years prior to 2008 Diuron detected in 1 other well
	39M02S06E30	0.09 (2009)	2,850	ND (2009)	4,572 Alfalfa 0 Other Crops	Years prior to 2009
	50M04S11E31	0.26 (2004)	2,684	ND (2004)	1,383 Alfalfa 1,560 Other Crops	Years prior to 2004
	50M06S08E26	0.06 (2007)	1,597	ND (2007)	639 alfalfa 0 Other Crops	Years prior to 2002

Table 2. Wells where use of hexazinone on roadside or combination of use patterns is most likely source for detection in well water. Data for amount used from Pesticide Use Report data base where records start at year 1990.

Likely Source of Detections	Section with Well	Hexazinone		Diuron		Comments on Pattern of use and Detections
		Concentration ug/L (Year)	Reported Alfalfa Use Prior to Year of Detection	Concentration ug/L (Year)	Reported Use Prior to Year of Detection (lbs)	
Roadside/ non-crop	19S01S09W27	0.07 (2008)	0	ND (2008)	0 All Crops	Tebuthiuron detected - non-crop use
	06M15N03W36	0.06 (1998)	0	ND (1998)	0 All Crops	Years prior to 1998
	10M14S22E13	0.07 (2000)	0	0.05 (2001)	0 Alfalfa 688 Other Crops	Years prior to 2000
	10M15S22E05	0.05 (2010)	0	0.11 (2010)	0 Alfalfa 728 Other Crops	Years prior to 2010 Diuron detected in 1 other well
	10M14S21E21	0.05 (2001) 0.06 (2002)	0	0.11 (2001) 0.12 (2002)	0 Alfalfa 53 Other Crops	Years prior to 2001
	50M07S08E14	0.06 (2001) 0.07 (2002)	0	ND (2001) ND (2002)	1,875 Alfalfa 0 Other Crops	Years prior to 2001
Alfalfa and/or Roadside	39M02S06E19	0.07 (2009)	756	ND (2009)	1,837 Alfalfa 48 Other Crops	Years prior to 2009 Diuron detected in 1 other well
	39M02S05E23	0.11 (1996)	267	ND (1996)	608 Alfalfa 0 Other Crops	Years prior to 1996
	48M06N01E05	0.09 (2002)	287	0.09 (2002)	0 All Crops	Years prior to 2002
	50M04S09E19	0.27 (1996)	120	ND (1996)	0 All Crops	Years prior to 1996 Diuron detected in 1 other well

Table 3. Chemical analytical results for all residues tested in the wells where hexazinone was sampled. ND is non-detected at a reporting limit of 0.05 ug/L. 2-Hydroxy is a breakdown product of hexazinone, specifically 2-hydroxycyclohexyl hexazinone. DEA is deethyl atrazine that is a degradate of atrazine, ACET is 2-amino-4-chloro-6-ethylamino-s-triazine and DACT is 2,4-diamino-6-chloro-s-triazine. ACET and DACT are degradates of either atrazine or simazine. ESA is the ethanesulfonic acid and Oxime is the oxanilic acid degradation products of alachlor and metolachlor.

Section with Well	Date Sampled	Pesticide Active Ingredient or Transformation Product													
		Hexazinone		Other Triazine Residues					Other Pre-emergence Herbicides			Alachlor/Metolachlor Transformation Products			
		Hexazinone	2-Hydroxy (degradate)	Atrazine	DEA	Simazine	ACET	DACT	Diuron	Bromacil	Tebuthiuron	Alachlor ESA	Alachlor Oxime	Metolachlor ESA	Metolachlor Oxime
06M15N03W36	6/13/1998	0.06	-	ND	ND	ND	ND	-	ND	ND	-	-	-	-	-
10M14S21E21- Sample 1	3/21/2001	0.05	-	ND	ND	0.14	0.060	0.76	0.10	0.23	-	-	-	-	-
Sample 2	10/24/2001	0.06	-	ND	0.07	0.15	0.71	0.70	0.11	0.18	-	-	-	-	-
Sample 3	10/28/2002	0.06	-	ND	0.06	0.17	0.51	0.74	0.12	0.20	-	-	-	-	-
10M14S22E13	3/15/2000	0.07	-	ND	ND	0.13	0.15	0.07	ND	ND	-	-	-	-	-
10M15S22E05	4/13/2010	0.05	-	0.10	0.20	0.10	0.22	0.24	0.13	0.13	ND	-	-	-	-
10M17S19E36 - Well 1	9/25/2007	0.08	-	ND	ND	ND	ND	ND	0.08	ND	-	-	-	-	-
10M17S19E36 - Well 2	9/26/2007	0.25	-	ND	ND	ND	0.64	2.14	0.15	ND	-	-	-	-	-
10M17S19E36 - Well 3	1/24/2008	0.13	-	ND	ND	ND	ND	0.09	ND	ND	-	-	-	-	-
19S01S09W27	4/16/2008	0.07	-	ND	0.05	ND	ND	ND	ND	ND	0.05	-	-	-	-
24M09S14E23	11/5/1997	0.11	-	ND	ND	ND	ND	-	0.12	ND	-	-	-	-	-
39M01N05E16	6/10/2008	0.09	-	ND	ND	ND	ND	ND	ND	ND	ND	-	-	-	-
39M02S04E22	10/8/2002	0.10	ND	ND	0.08	0.05	ND	ND	ND	ND	-	-	-	-	-
39M02S05E23 - Sample 1	8/8/96	0.09	-	ND	ND	ND	ND	-	ND	ND	-	-	-	-	-
Sample 2	10/3/1996	0.11	-	ND	ND	ND	ND	-	ND	ND	-	-	-	-	-
39M02S05E24 - Sample 1	8/18/1996	0.07	-	ND	ND	ND	ND	-	0.06	ND	-	-	-	-	-
Sample 2	10/3/1996	0.06	-	ND	ND	ND	ND	-	0.06	ND	-	-	-	-	-
Sample 3	10/7/2002	0.06	ND	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-
39M02S06E19	7/20/2009	0.07	-	ND	ND	ND	ND	ND	ND	ND	ND	0.87	ND	1.45	0.25
39M02S06E30	4/28/2009	0.09	-	ND	ND	ND	ND	ND	ND	ND	ND	0.73	ND	2.15	0.18
48M06N01E05	4/3/2002	0.09	ND	0.24	0.11	ND	0.11	ND	0.09	ND	-	-	-	-	-
48M06N01E23	2/6/2007	0.13	-	0.07	ND	ND	ND	0.11	0.15	ND	-	-	-	-	-
48M06N01W36	3/21/1995	0.06	-	0.52	0.30	ND	ND	ND	ND	ND	-	-	-	-	-
50M04S09E19	8/6/1996	0.27	-	ND	ND	ND	ND	-	ND	ND	-	-	-	-	-
50M04S11E31	8/9/2004	0.26	-	ND	ND	ND	ND	0.07	ND	ND	-	ND	ND	0.11	ND
50M06S08E26	3/14/2007	0.06	-	ND	ND	ND	0.05	0.09	ND	ND	-	-	-	-	-
5007S08E14 - Sample 1	8/15/2001	0.06	-	ND	ND	ND	ND	ND	ND	ND	-	0.48	ND	20.2	2.65
Sample 2	4/8/2002	0.07	0.13	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-
50M07S09E06	3/13/2007	0.09	-	ND	ND	ND	ND	ND	0.09	ND	-	-	-	-	-